

Figure 1

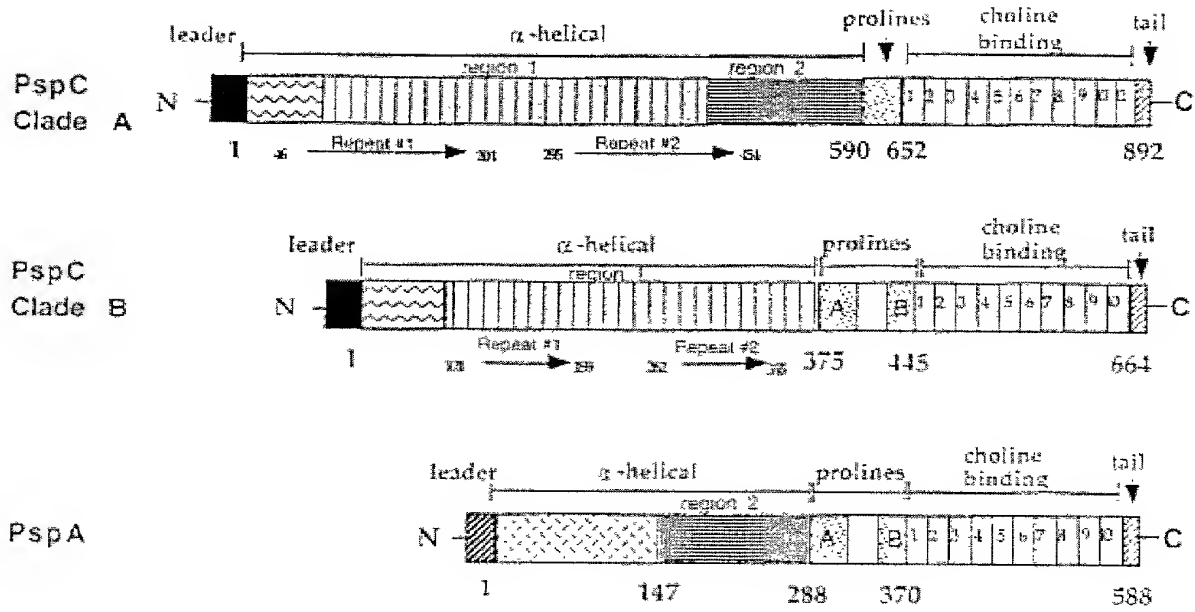


Figure 2

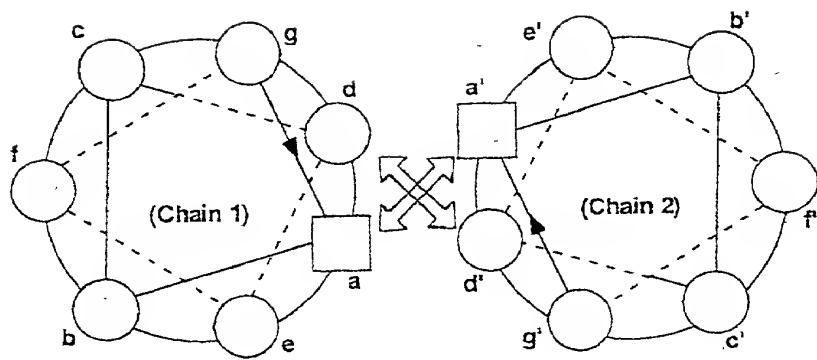


Figure 3

1. Identify Potential epitopes in PspA from Clinically Revelant Strains

Strain BG 8743 (Sterotype 23F)
defgabcdefgabcdefgab
LEKDVEDFKNSDGEQAEQVL (SEQ ID NO: 10)
Residues 290-301

Strain EF5668 (Sterotype 4)
defgabcdefgabcd
LEDNLKDAETNNVED (SEQ ID NO: 11)
Residues 330-344

Strain BG 8090 (Sterotype 19F)
defgabcdef
LAKKQTELEK (SEQ ID NO: 12)
Residues 267-276

2. Splice Epitopes Together

DVEDFKNSDGELEDNLKDAETNNVEDAKKQTELEK (SEQ ID NO: 13)

3. Replace a and d Positions (underlined)

DIEDLKNSIGELEDNIKELETNIVELAKKITELEK (SEQ ID NO: 14)

Figure 4

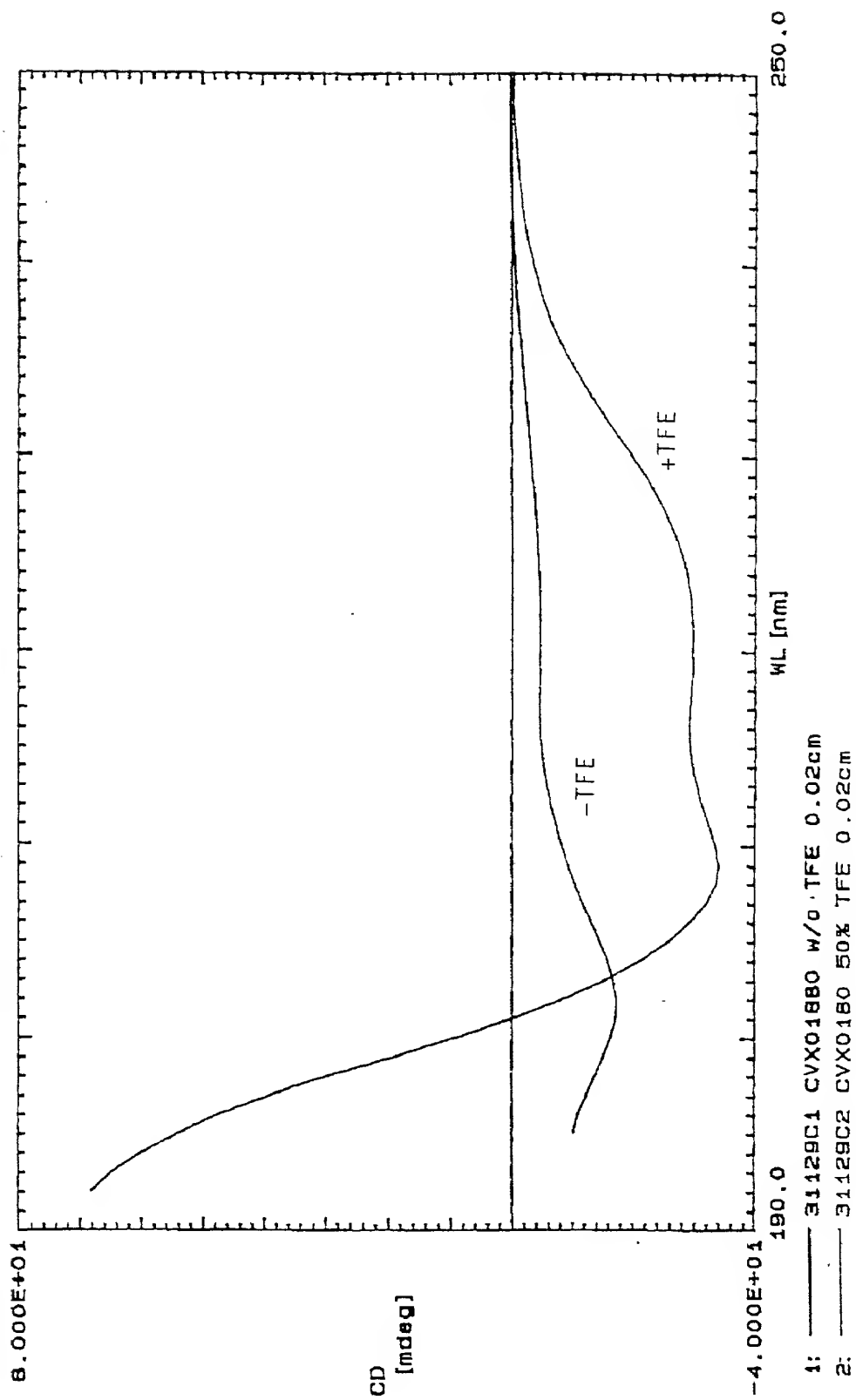


Figure 5

Consensus	--E---E-L--KIDELD-EIA-LEK-V---E---K---E---E-Y--	79
BG6692	--E---E-ESDKIDELDAETAKLEKNV--E-DF-KNSNGEQ-AEQY-R	299
Strain 23	--E---E-ESDKIDELDAETAKLEKNV--E-DF-KNSNGEQ-AEQY-R	135
Strain SP	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSDGEY-SALY-L	135
Strain SP	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSDGEY-SALY-L	135
BG8838	--E---E-ESDKIDELDAETAKLEKNV--E-DF-KNSNGEQ-AEQY-R	299
strain 13	--E---E-ESDKIDELDAETAKLEKNV--E-DF-KNSNGEQ-AEQY-R	95
Strain SP	--E---A-ENKQVADLENKVAELDKVTRLOSDEL-KDAEENN-VEYVVK	127
Strain 18	--E---A-ENKQVADLENKVAELDKVTRLOSDEL-KDAEENN-VEYVVK	98
BG8743	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSDGEQ-AEQYLV	307
Strain 16	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSDGEQ-AEQYLV	143
Strain 90	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSDGEQ-AEQYLV	121
Strain 13	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSDGEQ-AEQYLV	120
Strain 11	--A---E-EDKKADELQNKVADLEKEISNLEILL-GGADPE---DDT--	86
Strain 43	--A---E-ENKKVESLQNKVADLEKEISNLEILL-GGADPE---DDT--	99
Strain 23	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSDGEQ-AEQYLV	84
BG11703	AAEA---E-ENKKVEALQNOVAELEELSKEEDNL-KDAETNN-VEYIK	366
BG7817	AAEA---E-ENKKVEALQNOVAELEELSKEEDNL-KDAETNN-VEYIK	366
Strain 18	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSDGEQ-AEQYLV	122
BG9739	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSDGEQ-AGQYL-	283
L81905	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSDGEQ-AGQYL-	283
PspA AC94	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSGGGY-SALYL-	280
Strain 15	--E---E-ESDKIDELDAETAKLEKDV--E-DF-KNSDGEQ-AEQYLV	145
ATCC6303	AAEDANIEALQNKVADLENKVAELDKVTRLOSDEL-KDAEENN-VEYVVK	348
BG7561	AAEA---E-ENKKVEALQNOVAELEELSKEEDNL-KDAETNN-VEYIK	366
Strain 23	AAEA---E-EDKKADELQNKVADLEKEISNLEILL-GGADPE---DDT--	133
Strain 18	AAEA---E-EDKKADELQNKVADLEKEISNLEILL-GGADPE---DDT--	135
SP 222	AAEDANIEALQNKVADLENKVAELDKVTRLOSDEL-KDAEENN-VEYVVK	127
BG9163	--E---E-ESGKIEELDAETAELE-V---Q--L-KDAEGNNNVEAYFK	297
EF6796	--E---E-ESGKIEELDAETAELE-V---Q--L-KDAEGNNNVEAYFK	296
BG8090	AAEA---E-EDKKADELQNKVADLEKEISNLEILL-GGADPE---DDT--	414
EF3296	AAEA---E-EDKKADELQNKVADLEKEISNLEILL-GGADSE---DDT--	413
Rx1	--E---E-ESDKIDELDAETAKLE-D---Q--L-KAAEENNNVEYFK	261
DBL1	--E---E-ESDKIDELDAETAKLEKNV--EY-F-KKTDAEQ-TEQYL-	283
EF5668	AAEA---E-LNEKVEALQNOVAELEELSKEEDNL-KDAETNN-VEYIK	347
Wu2	--E---E-ESDKIDELDAETAKLE-D---Q--L-KAVEENNNVEDYST	290
EF10197	--E---E-ESDKIDELDAETAKLE-D---Q--L-KAAEENNNVEYFK	282
PspA AC12	AAEA---E-EDKKADELQNKVADLEKEISNLEILL-GGADSE---DDT--	321
DBL5	--E---E-ESGKIEELDAETAELE-V---Q--L-KDAEGNNNVEAYFK	284
DBL6A	--EEDRRNYPTNTYKTLDELTAESDVRVKEAELELVKEEAKESRNEEKVK	366
BG6380	GEETLILA-IQNKISDLQDKIAEAEKKLADSQ-----NCEG-VEYWT	303

Figure 6

Figure 7: CD Spectrum of CVX0270

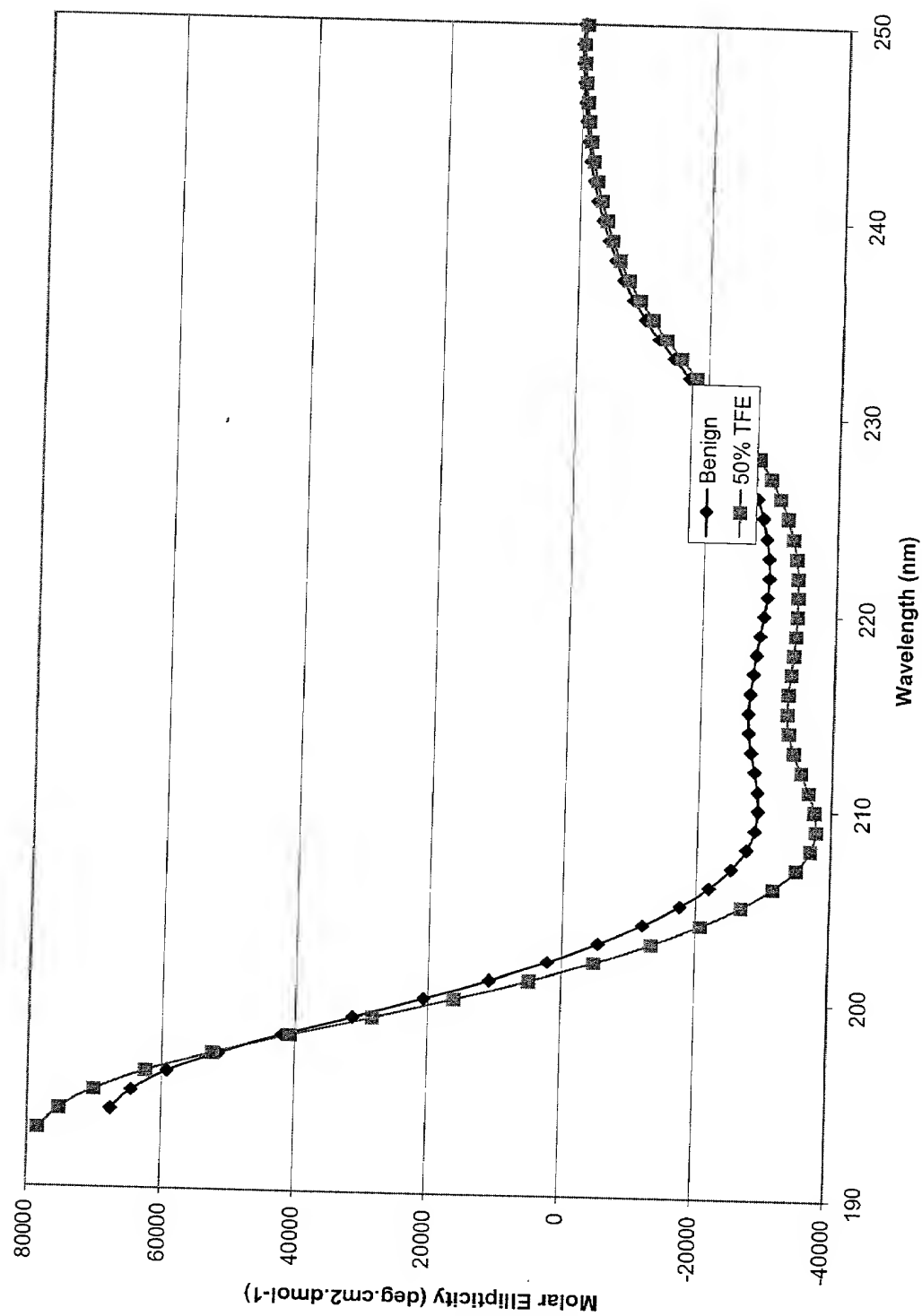


Figure 8: Thermal Denaturation of Peptide CVX0270

